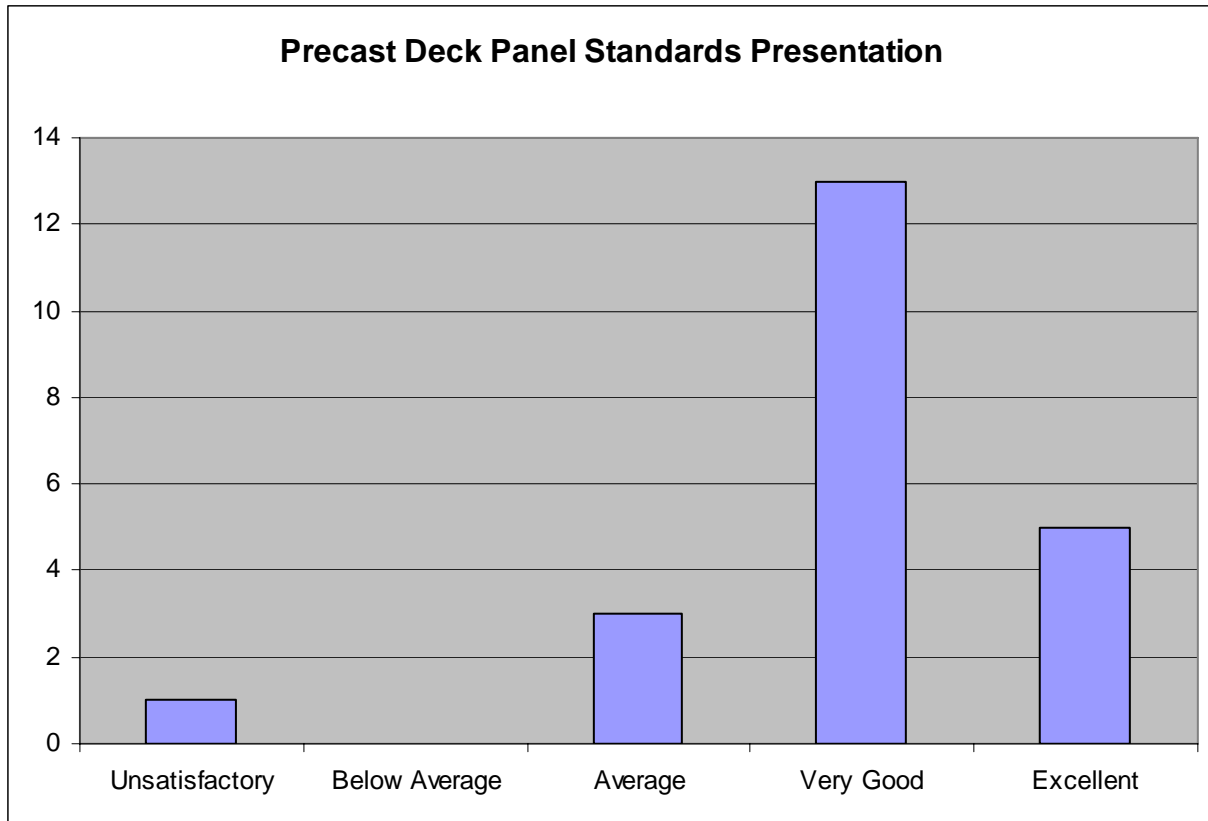




# **UDOT Local Industry Accelerated Bridge Construction Standards Workshop Survey Summary**

**Little America Hotel  
Salt Lake City, Utah  
April 14, 2008**

## **Precast Deck Panel Standards Presentation**



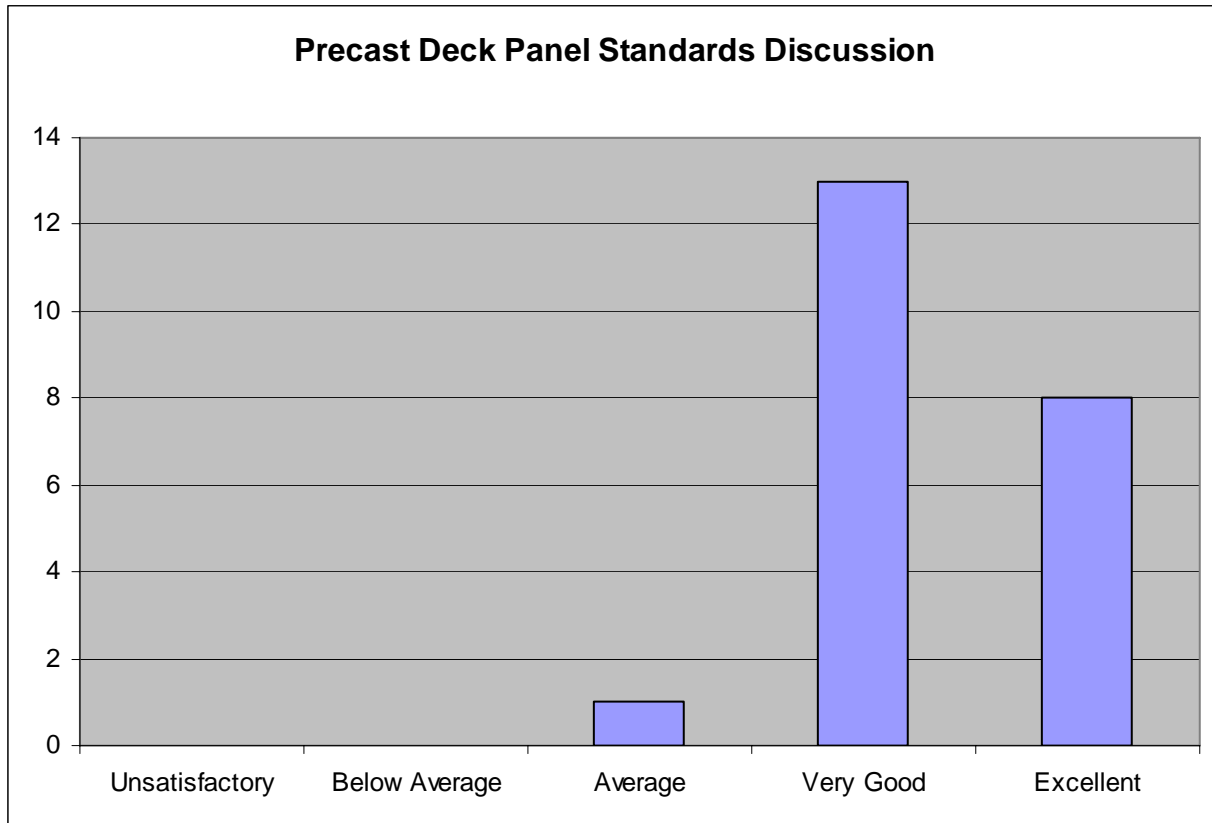
### **Summary of what was liked:**

- Methodology, objectives, assumptions, and basis for the go-by drawings was explained.
- Showed a good level of understanding and a reasonable spectrum of design.
- I liked having designers, contractors, precasters, and researchers in the same room for discussion.
- Good level of detail given.
- Very good discussion and interaction from audience.

### **Summary of what was disliked:**

- Questions should be resolved before moving on to a new topic.
- Some of the language could limit the engineer's willingness to take the time to optimize the girder design.
- Need more guidance on type of transverse joint to use.
- Some of the graphics were not consistent with how things are actually built.
- Would have liked to know more about design methodology, AASHTO criteria that was met, and how details were derived (background).

## **Precast Deck Panel Standards Discussions**



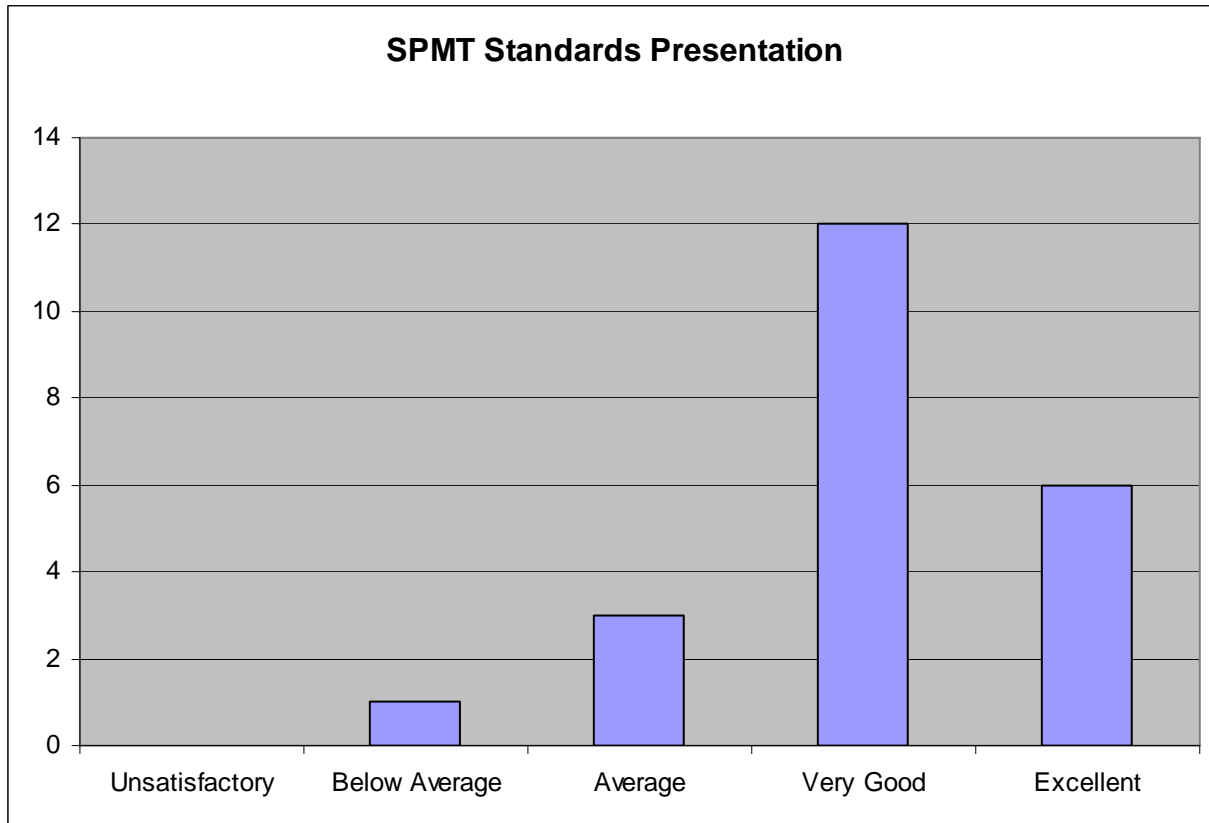
### **Summary of what was liked:**

- Very informative with great detail.
- Great discussion and participation with many disciplines involved.
- Great idea to write on white board.
- Willingness of UDOT to consider new ideas.
- Use of microphones and introductions of those asking questions.

### **Summary of what was disliked:**

- Concerned people may use go-bys to replace engineering judgment.
- Not yet clear about some of the limitations, such as P/T lengths and girder spacing. Need P/T spec. I do not like joints across the bridge.
- Random discussion, would have liked to have some type of agenda so I know what was going to be covered, when, etc.

## **SPMT Standards Presentation**



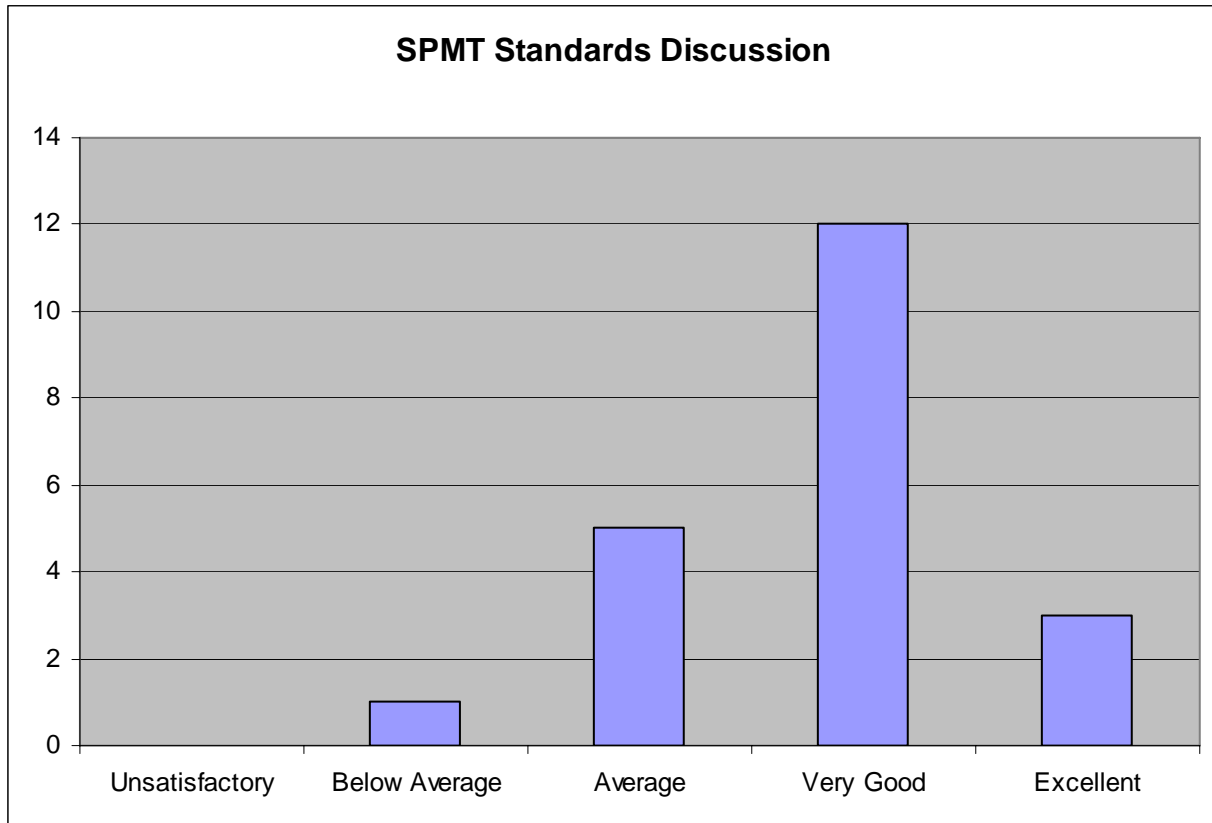
### **Summary of what was liked:**

- I wish we could have had the presentation right after we got the plans. Your presentation clarified a lot.
- All the hard work to pull this together was appreciated.
- A good example of drawings and specs.
- Helped to define the roles and responsibilities of all parties.
- Very methodical and thorough. Good information.

### **Summary of what was disliked:**

- Should consider other lift technologies besides SPMT.
- A little lengthy and dry.

## **SPMT Standards Discussion**



### **Summary of what was liked:**

- Better resolution of questions before moving on.
- Those who were involved had good comments.
- Ability to change format and input at the break.
- Answered many technical questions.
- Willingness of UDOT to consider new ideas.
- Good to hear the contractors and heavy lifters views on these matters.
- William had an agenda, an organized method to discussion.

### **Summary of what was disliked:**

- Seems to be no method in place to protect proprietary systems.
- Discussion did not pertain to or include all workshop participants.
- Some comments were not validated or addressed.
- Needed more SPMT specialty contractors involved in the discussion.
- A little dry for contractors.
- May have problems with CMGC or DB processes.
- Still missing some items - specifications, etc.

**Additional Recommendations from Other Comments:**

- Provide two documents for the SPMT standards - specifications and manual of practice.
- There should be more research of new materials for decks (GFRP, expansive grout, etc.)
- Concerning deflections on SPMT moves: For deflections exceeding tolerances or specifications, use a pay factor reduction similar to under-strength concrete, etc. Also, could mandate epoxy injections or other measures for certain tolerance exceedances.
- Have more of a UDOT presence during the entirety of the workshop.
- Consider relaxing the beam spacing limitations and conducting an optimization of steel girder spacing and design.

# **Appendix I**

## **Full Survey Comments for Precast Deck Panel Standards Presentation**

### **What did you like?**

- Open discussion
- Detail
- Condensed informative information.
- Very good discussion from audience.
- Good introduction and overview.
- Good job.
- Presentation.
- Comments and interaction.
- Drawing presentation.
- Good to hear the basis for the go-by drawings.
- Showed a good level of understanding and a reasonable spectrum of design.
- I liked having designers, contractors, precasters, and researchers in the same room for discussion.
- Methodology was explained.
- Beginning and end of presentation about objectives and assumptions.

### **What did you dislike?**

- Resolve questions before moving on.
- Some of the language could limit the engineer's willingness to take the time to optimize the girder design.
- Need more guidance on type of transverse joint to use.
- Some of the graphics were not consistent with how things are actually built.
- Beam spacing too small.
- Would have liked to know more about design methodology, AASHTO criteria that was met, and how details were derived (background).

# **Appendix II**

## **Full Survey Comments for Precast Deck Panel Standards Discussion**

### **What did you like?**

- Open discussion
- Detail and questions
- Condensed informative information.
- Great discussion.
- There was excellent open discussion with many good comments.
- Getting (forcing) feedback from the contractors and manufacturers.
- Great discussion with many disciplines involved.
- Great participation.
- Discussion and comment period. Great idea to write on white board.
- Open discussion of details and concerns. Willingness of UDOT to consider new ideas.
- Good to hear the designers points of view.
- They seem to be well considered.
- All comments.
- Lots of discussion, use of microphones, and names stated.

### **What did you dislike?**

- Concerned people may use go-bys to replace engineering judgment.
- Not yet clear about some of the limitations, such as P/T lengths and girder spacing. Need P/T spec. I do not like joints across the bridge.
- Random discussion, would have liked to have some type of agenda so I know what was going to be covered, when, etc.

# **Appendix III**

## **Full Survey Comments for SPMT Standards Presentation**

### **What did you like?**

- Better resolution of questions before moving on.
- Questions
- Condensed informative information.
- Good discussion of SPMT.
- Good overview.
- Good job. I wish we could have had the presentation right after we got the plans. Your presentation clarified a lot.
- Very thorough and well done.
- All the hard work to pull this together. Thanks. William.
- Good overview.
- A good example of drawings and specs.
- Helped to define the roles and responsibilities of all parties.
- It was very comprehensive.
- Excellent practice manual.
- Very methodical and thorough. Good information.

### **What did you dislike?**

- Other lift technologies besides SPMT?
- A little lengthy.
- Very professor like. Almost put me to sleep.
- Specs confusing in delivery system.
- Seemed long - right after lunch.

# **Appendix IV**

## **Full Survey Comments for SPMT Standards Discussion**

### **What did you like?**

- Questions and detail
- Condensed informative information.
- Those who were involved had good comments.
- Good job at making it less structured, the page by page review was slow.
- Hearing from all entities involved.
- Good discussion.
- Ability to change format and input at the break.
- Answered many technical questions.
- Open discussion and willingness of UDOT to consider new ideas.
- Good to hear the contractors and heavy lifters views on these matters.
- The standards seem very defensible to me.
- Good critical discussions.
- All comments.
- William had an agenda, an organized method to discussion.

### **What did you dislike?**

- Proprietary system protection.
- Discussion did not pertain to or include all workshop participants.
- Felt like William's show. He didn't validate or hear any of the others' comments and concerns, he simply discarded them.
- Needed more SPMT specialty contractors involved in the discussion.
- A little dry for contractors.
- May have problems with CMGC or DB processes.
- Still missing some items - specifications, etc.
- The bulk of this captive audience has no experience with SPMTs. Should have only had those in attendance with experience and the ability to contribute to the discussion.

# **Appendix V**

## **Full Survey Comments for Additional Comments**

### **Positive / Neutral Comments:**

- There should be two documents - specifications and manual of practice.
- There should be more research for new materials for decks (GFRP, expansive grout, etc.)
- Are there plans for an optimizing steel girder design for use with precast deck panels, SPMT, and Accelerated Bridge Construction?
- Concerning deflections on SPMT moves: For deflections exceeding tolerances or specifications, use a pay factor reduction similar to under-strength concrete, etc. Also, could mandate epoxy injections or other measures for certain tolerance exceedances.
- Thank you for the opportunity to see the vision of the department, looking forward to seeing the publications/updates.
- DB, DBB, CMGC, precaster, heavy lifter, consultants, inspectors, FHWA, contractors, and owner working together will make the system better (knowledge shared!).
- Excellent discussion and continuation of the ABC journey.
- Thank you for all of your help. You have helped us out a lot.
- Very good presenters.
- This meeting will help me with writing concept reports. It is good for a bridge planner to have a criteria for the use of precast deck panels and SPMTs.
- Excellent workshop. This is a major undertaking. I believe that this is an iterative process and will take time. I think progress has been made. I look forward to looking at and reviewing the published standards. Thanks.
- Keep ABC process going!

### **Negative Comments / Recommendations:**

- Who is running this show? Is it HDR, Mary Lou and William, or UDOT? If in fact it is UDOT, then where is the "control", the oversight of today's events on a continual basis throughout the day?
- I am still concerned that the language in page 5 of 23 (section 4) "parameters" limits the beam spacing to 10'-0" non-prestressed and to 12'-0" prestressed. This could severely limit the optimal design particularly for steel girders. Has this beam spacing criteria been thoroughly reviewed by the engineering community and could the spacing be increased in the manual?